

ABSTRACT

Background

Almost 50% of labour are felt to be affected by dystocia in the first or second stages of labour and this particularly affects the first labour. Prolonged labour is an important risk factor for both maternal morbidity and perinatal compromise. Minimizing the duration of labour without compromising fetomaternal wellbeing is a desirable outcome in all delivery units. Antispasmodic drugs have been used to accelerate cervical dilatation and thus reduce the labour duration.

Objectives

Our aim was to compare the safety and efficacy of intravenous Drotaverine hydrochloride against intravenous hyoscine butyl bromide in augmentation of labour among nulliparous women

Methods

This study was conducted in teaching hospital attached to Stanley medical college, Chennai. 600 low risk nulliparous women who fulfilled selection criteria with full-term pregnancy with vertex presentation in active phase of labour (i.e., with 3- 4 cm cervical dilatation) were selected and were randomly assigned into 3 groups with 200 women in each namely

Group A or Control group - Progress of labour was monitored using a partogram

Group B or Drotaverine group - Single dose of Inj. Drotaverine 40 mg was given intravenously and the progress of labour was monitored using a partogram

Group C or Hyoscine group - Single dose of Inj. Hyoscine 20 mg was given intravenously and the progress of labour was monitored using a partogram.

Main Outcome Measures

Primary outcome which includes the duration of I, II, III Stage of labour, cervical dilation rate and secondary outcome which includes the mode of delivery, maternal drug side effects, third stage complications and neonatal outcome (APGAR at 1 minute and 5 minutes, NICU admission) were studied.

Results

In this study the duration of active phase of labour was 213.51 minutes in control group while in drotaverine and hyoscine groups were 162.58 minutes and 148.57 minutes respectively. In this study the cervical dilatation rate was 1.7 cm/hr in control group while in drotaverine and hyoscine groups was 2.2 cm/hr and 2.5 cm/hr respectively. There was statistically significant reduction in the duration of active phase of labour.

Conclusion

Both Drotaverine hydrochloride and Hyoscine Butyl bromide is effective in shortening the duration of first stage of labour by virtue of faster cervical dilatation there by helping in augmentation of labour among the nulliparous women. Hyoscine butyl bromide is a superior cervical dilatation agent as compared to Drotaverine hydrochloride. Both the drugs had no significant maternal or fetal adverse effects

Keywords:

Nulliparous women, Drotaverine, Hyoscine, Augmentation of labour